

What is claimed is:

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1. In an array of porous polymer pads on a solid surface, the improvement comprising freeze drying the array of porous polymer pads to increase the pore size of the

5 porous polymer.

2. An array of porous polymer pads on a solid surface wherein the porous polymer pads are freeze dried and have increased pore size in the porous polymer after freeze drying.

10 3. The array of claim 2 wherein a specific binding substance is covalently linked to the porous polymer.

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4. The array of claim 3 wherein the specific binding substance is a polynucleotide.

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15 5. A method for freeze drying an array of porous polymer pads on a solid support comprising:

- a. freezing the porous polymer array on the solid support and
- b. drying the porous polymer array on the solid support at reduced pressure.

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6. The method of claim 5 wherein ^{said freezing is} the porous polymer pads are frozen at liquid nitrogen temperatures and ^{said drying is} dried under vacuum to remove water by sublimation.

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